

truncated in front, acute, and keeled above behind; muzzle short, truncated, annulated, with a triangular inferior mouth; tentacles 2, lateral, far apart, tapering and acute; eyes moderate, sessile, at the outer side of the base of the tentacles; the front part of the back of the foot concave, surrounded by a continuation of the mantle, forming a fleshy submarginal fringe, which is fuller (when contracted in spirits), crumpled and folded on itself on the left side. Operculum none.

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## MISCELLANEOUS.

### PORTRAIT OF DR. JOHNSTON.

IN our Number for September 1855, we gave a short notice of the life and labours of Dr. George Johnston of Berwick-upon-Tweed, who was one of the Editors of this Journal from its commencement to the day of his death. Although so long a time has elapsed since the lamented decease of this distinguished zoologist, we hope that the excellent portrait of him which we have the pleasure of presenting to our readers as the **FRONTISPIECE** to the present volume of the 'Annals' may not prove unacceptable. Those who were acquainted with the late Dr. Johnston will recognize in it an excellent likeness of that amiable and talented naturalist, in which even the benignity of expression which peculiarly characterized him has been most faithfully preserved.

The portrait, which is copied from an excellent daguerreotype by Mr. Claudet, taken in 1850, was kindly lent to us for this purpose by Dr. Gray of the British Museum, and has been executed by Mr. Robert Hicks. It is admirably done, and ought to add greatly to the reputation of this talented young engraver.

*On the Occurrence of some new species of Pollicipes in the Inferior Oolite and Lias of Gloucestershire.* By the Rev. P. B. BRODIE, M.A., F.G.S.

Mr. Darwin in his valuable and interesting Monograph on the Fossil Lepadidæ, published in the Memoirs of the Palæontographical Society for 1851, observes, that "the oldest known pedunculated Cirripede is a *Pollicipes*, discovered by Professor Buckman in the Stonesfield Slate." Since the publication of Mr. Darwin's memoir, I discovered the remains of a *Pollicipes* in the Inferior Oolite at Selsley Hill near Stroud, in Gloucestershire, a locality which has afforded many new and interesting fossils, for which we are indebted to the able and active researches of my friend Mr. Lycett.

Two valves of the scutum are entire, but the other three are too fragmentary to decide to which of the other valves they may have belonged. On comparing the scutum with the same valve in *Pollicipes ooliticus*, of the Stonesfield Slate, there is a marked difference

between them, so that, in all probability, this will prove to be a distinct species; but this I hope Mr. Darwin will be able to determine.

Another and probably a different species has been found by Mr. Gavey at Chipping Campden in Gloucestershire, in the top beds of the lower Lias, which are very prolific in organic remains wherever they occur. As the Cirripedes are usually rare in a fossil state, especially in the Oolites and Lias, it seemed desirable to notify the existence of some species of Lepadidæ during these geological periods, — a somewhat earlier date than the one previously indicated.

#### MR. YARRELL'S COLLECTIONS.

Our readers will be gratified to learn, that the Trustees of the British Museum have secured for the Museum the collection of British Fish, and all the specimens of Birds and other animals illustrating Mr. Yarrell's various papers in the Transactions of the Linnæan and Zoological Societies, at the sale of his property.

#### *On the Stereognathus Ooliticus, from the Stonesfield Slate.*

By Prof. OWEN, F.R.S., F.G.S.

The subject of this paper was a small mammal, represented by a fragment of a lower jaw retaining three molar teeth, which was obtained by the Rev. J. Dennis from the Stonesfield-slate of Oxfordshire, and named *Stereognathus Ooliticus* by Mr. E. Charlesworth. This specimen, described in detail by Prof. Owen at the British Association Meeting in September last, indicated, in the author's opinion, an animal allied to some extinct genera of even-toed Pachyderms, viz. the *Hyracotherium*, *Microtherium*, and *Hyopotamus* of the Tertiary deposits; and he concluded therefore that the *Stereognathus* was most probably a diminutive non-ruminant Artiodactyle of omnivorous habits.

With regard to the zoological reasons for referring this peculiar and ancient fossil to the type of animal form above alluded to, the Professor entered at some length into the analysis of the mental processes by which the palæontologist aims at the restoration of an unknown mammal from such a fragment as the fossil under notice. Its mammalian character is decided by the two-fanged implantation of the teeth, and its pachydermatous affinities are evidenced by the peculiar sex-cuspid and cingulated molars. These zoological relations are determined from the knowledge that such structural peculiarities obtain in certain known Pachydermata. Morphology, therefore, or the study of form, rather than physiology, or the known relation of organs to function, is the guide in this determination; but the Professor expressed his opinion that this example could not be cited as showing that there is no physiological, comprehensible, or rational law (in contradistinction to the morphological or empirical) which can be a guide in the determination of fossil remains.